

TWINSTAR

GENERATION 2

7 BAR SERIES BASKET RAKES



Model 2030G2-7
Equipped with Optional
Front Gauge Wheels

***Cleaner Hay Means Higher Returns
and More Nutrients in Hay and Silage!***



Twinstar Generation 2 Basket Rakes are the premier hay rakes designed for commercial farming operations. These rugged built hay rakes are designed to rake two windrows together and for turning hay to speedup drying time prior to baling for high production hay farming, custom operators, and dairies raking green chop. Twinstar Basket Rakes produce consistent uniform windrows and the cleanest hay on the market. Cleaner hay brings higher returns and provides the highest quality feed to ensure animals receive proper nutrients. Research has documented that basket raked hay contains significantly less contaminants (dirt, rocks, and debris) and has less leaf loss compared to traditional finger wheel and rotary rakes. Twinstar Generation 2 Hay Rakes are designed for functionality and longevity in today's demanding markets. Twinstar 7-Bar Rakes are available in 27' & 30' approximate raking widths for windrowers equipped with 12' to 18' headers.

Innovative Design • Built to Last



6-FUNCTION ELECTRIC HYDRAULIC VALVE & CONTROL BOX



SELF-ALIGNING IDLER HUBS



DOUBLE EXTENSION TUBES FOR ADDED STRENGTH

TWINSTAR G2 7-BAR RAKES ARE BUILT TO LAST AND HAVE MANY UNIQUE & INNOVATIVE FEATURES:

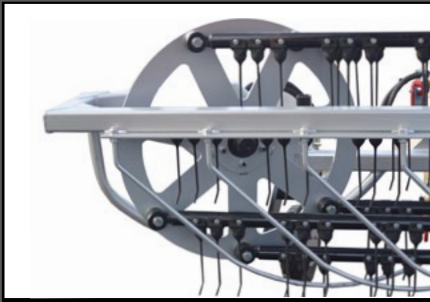
- 7 Bar Baskets are equipped with 30" diameter drive & idler wheels laser cut from 3/8" high strength steel
- 7 Bar Baskets make fluffier, more uniform windrows for faster drying time
- 7 Tine Bar design allows for higher ground speeds up to 10 MPH
- 7 Bar Baskets are designed to handle heavier crops
- 7 Bar Baskets allow the operator to rake longer in the day, accomplished by slowing basket RPM speed which minimizes leaf loss
- Specially designed hydraulic manifold limits flow to hydraulic motors and valve, providing exceptional protection to the rake's hydraulic system. Requires only 12 gallons per minute to operate the rake
- Hydraulic drive motors are mounted to a separate bearing housing and shaft assembly which in turn is mounted to the drive wheel and basket assembly for increased strength and reliability
- Basket rake assemblies are equipped with torsion axles which provide a superior suspension versus spring protection
- Basket Frames are designed for durability & are equipped with gauge wheel mounting brackets front & rear
- Parallel basket linkage provides heavy-duty basket support and precision alignment
- Idler end of the basket is equipped with a self-aligning idler hub. This unique feature ensures precision tine bar, bearing and hub alignment which provides years of trouble free service
- Equipped with 6 function electric-hydraulic valve w/ independent raising & lowering of baskets or together
- Rake design includes double extension tubes for increased strength. The interior walls of the outer tubes are equipped with UHMW strips to reduce friction and insure a smooth operation
- Generation 2 Rakes are equipped with unique "Hose Trac" system that provides total hose protection when extending and closing the basket extension tubes
- Basket assemblies are shear bolt protected with double-shear angle cylinder mounts
- Transport light kit per ASABW / ANIS279
- G3 Series split hoses with JIC fittings at end of slide tubes for serviceability

FIELD TEST RESULTS SHOW PERCENTAGE OF CONTAMINANTS IN RAKED HAY



Field test conducted by an independent farm in 2004 measuring the percentage of contaminants in raked hay using the following comparable width hay rakes: 5-Bar Basket Rakes, Rotary Rake and Finger Wheel Rake. Results vary due to equipment settings and field & crop conditions.

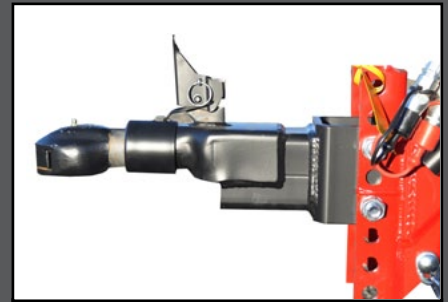
Cleaner Hay Means Higher Returns and More Nutrients in Hay and Silage!



**BASKETS EQUIPPED WITH
OPTIONAL FULL TINES**



FRONT & REAR GAUGE WHEELS



OPTIONAL 2-5/16" BALL HITCH

Twinstar Testimonials

Primary reasons we purchased Twinstar basket rakes was we wanted to be able to make all rake functions operate through one easy to operate control box. Depending on the crop conditions, we can operate much faster than before and still produce a fluffy windrow and rake later in the day if needed to beat the weather. We currently farm 1500 acres of alfalfa mostly on a custom level and need the reliability without down time.

-Generation 2 Rake Owner, Harrah, WA

The Twinstar Generation 2 Rake is more versatile than my Generation 1 Rake. I get a more uniform and fluffier windrow without clumping. The seven bar design rolls and lays the hay out better than my Generation 1 Twinstar Rakes. I get better raking at a wide angle. We windrow with 14' headers and the wider angle allows me to rake two windrows together and then come back and rake those two together. I can rake faster with seven bars than five. I like the heavier frame because it allows me to get better fore and aft tilt when I need it and the basket still stays level. If the basket is level then I get less dirt pickup and a cleaner windrow. Gauge wheels are worth every penny. As a matter of fact, after operating Generation 2 with two sets, I am going to modify my old ones to do the same. I wouldn't buy a rake without them. Overall, I really like the job the rake does.

-Generation 2 Rake Owner, Stockton, CA



**HYDRAULIC MANIFOLD PROTECTS
THE RAKE'S HYDRAULIC SYSTEM**



**EQUIPPED W/ HEAVY DUTY MOTORS
OPTIONAL HIGH TORQUE MOTORS**



**PARALLEL LINKAGE
TORSION BASKET SUSPENSION**



Phone: (509) 452-1651 • Fax: (509) 457-6601
www.northstarattachments.com



Cleaner Hay Means Higher Returns and More Nutrients in Hay and Silage!



"HOSE TRAC" HOSE PROTECTION



BASKET HEIGHT ADJUSTMENT LINK



**HEAVY-DUTY BASKET PIVOT w/ UHMW SHIMS
BASKETS ARE SHEAR BOLT PROTECTED**

SPECIFICATIONS

MODEL	2027G2-7	2030G2-7
SLIDE TUBES	Double Pair	Double Pair
MAXIMUM RAKING WIDTH	Up to 27'	Up to 30'
TRANSPORT WIDTH	10' - 9"	10' - 9"
OVERALL LENGTH	19' - 5"	20' - 2"
APPROXIMATE WEIGHT	5100 lbs.	5600 lbs.
TIRE SIZE	(4) LT235/75R15	(4) LT235/75R15
RUBBER MOUNTED TINES	Standard: 154 per basket Optional: 224 per basket	Standard: 175 per basket Optional: 259 per basket
BASKET REEL SPEED	Maximum 90 RPM	Maximum 90 RPM
TINE BAR BEARINGS	Precision Sealed ball bearings	Precision Sealed ball bearings
HYDRAULIC REQUIREMENT	12 gallons/minute @ 2000 PSI	12 gallons/minute @ 2000 PSI
OPERATING SPEED	Up to 10 MPH	Up to 10 MPH
GAUGE WHEELS	Optional Front and Rear	Optional Front and Rear

Requires tractor with single hydraulic remotes.

Optional equipment includes:

Front and rear gauge wheels (highly recommended), full tines (for lighter crop conditions), 2-5/16" ball hitch, 4 hose kit (for tractors with less than 12 GPM per remote), high torque motors in lieu of heavy duty motors (for heavy crop applications such as oat hay and silage), and basket angle stop kit.



**SLIDE TUBES EQUIPPED WITH 3 BASKET
POSITIONS FOR OFFSETTING BASKETS**



**OFFSET DUAL WHEELS
FOR MORE STABILITY**



OPTIONAL BASKET ANGLE STOP KIT